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Carter, G.C. and A.H. Nuttal, A brief summary of a generalized framework for power spectral estimation 2 (4) (1980) 387–390

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Casares-Giner, V., M. Bertrán-Salvans and J.A. García-López, Asymptotical inversion of non-singular digital symmetrical polynomial transfer functions 4 (1) (1982) 5– 16

Castanie, F., Signal processing by random reference quantizing 1 (1) (1979) 27– 43

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Cavaliere, S., I. Ortosecco, P. Parascandolo and A. Piccialli, Efficient coding for digital filters coefficients in noise measurements in PCM systems 4 (5,6) (1982) 375–385

Cerutti, S., D. Liberati and P. Mascellani, Parameter extraction in EEG processing during riskful neurosurgical operations 9 (1) (1985) 25– 35

Çetin, A.E., Reconstruction of signals from Fourier transform samples 16 (2) (1989) 129–148

Cezanne, J. and W. Kellerman, Elliptic filters for the design of digital filter banks with nearly constant magnitude 14 (1) (1988) 11– 24

Chadwick, V.J. and P.T. Bray, The Modified Hung Method of multiresolution frequency analysis 14 (1) (1988) 25– 35

Chakraborti, N.B. and R. Misra, Transition detection in image processing 13 (2) (1987) 197–207

Chalmond, B., Image restoration using an estimated Markov model 15 (2) (1988) 115–129

Chan, J.-C., Two autoregressive identities 19 (4) (1990) 337–342

Chan, Y.T. and L.G. Gadbois, Identification of the modulation type of a signal 16 (2) (1989) 149–154

Chanda, B. and D.D. Majumder, A note on the use of graylevel co-occurrence matrix in threshold selection 15 (2) (1988) 149–167

Chanda, B., B.B. Chaudhuri and D. Dutta Majumder, Image sharpening incorporating human visual response 9 (1) (1985) 57– 65

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Chandrasekaran, T. and M.V. Pitke, A conferencing technique for adaptive delta modulation 10 (4) (1986) 427–437

Chao, J. and S. Tsujii, Estimation and synthesis of singular vector AR processes over components spaces 18 (3) (1989) 313–326

Charbonnier, R., M. Barlaud, G. Alengrin and J. Menez, Results on AR-modelling of nonstationary signals 12 (2) (1987) 143–151

Charon, W., *see* Th. Cotillon 3 (2) (1981) 157–173

Chaudhuri, B.B. and B. Chanda, The equivalence of best plane fit gradient with Robert's, Prewitt's and Sobel's gradient for edge detection and a 4-neighbour gradient with useful properties 6 (2) (1984) 143–151

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Chen, K. and Chr. Svensson, High-speed parallel A/D converter array 15 (4) (1988) 441–444

Chen, S., G.J. Gibson, C.F.N. Cowan and P.M. Grant, Adaptive equalization of finite nonlinear channels using multilayer perceptions 20 (2) (1990) 107–119

Chen, X. and T.W. Parks, Design of optimal minimum phase FIR filters by direct factorization 10 (4) (1986) 369–383

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Chiron, G. and J.C. Barrere, Caractérisation du bruit d'un capteur magnétometrique à couche mince 4 (4) (1982) 305–312

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Chou, K.C. and A.S. Wilsky, A multi-resolution, probabilistic approach to 2-D inverse conductivity problems 18 (3) (1989) 291–311
Chu, Y.K. and C.Y. Suen, An alternate smoothing and stripping algorithm for thinning digital binary patterns 11 (3) (1986) 207–222
Ciccarella G. and P. Marietti, Time domain approach to recursive digital filter synthesis 12 (4) (1987) 385–393
Clark, A.P. and F. McVerry, Improved channel estimator for an HF radio link 5 (3) (1983) 241–255
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Cobben, W., A nonparametric signal detector for trend with dependent input data 4 (2,3) (1982) 125–137
Colin, N., P. Simard, P. Gaillard and R. Marsol, Un algorithme de detection de pics utilisant une simulation de palpeur 19 (1) (1990) 83– 90
Comon, P. and D. Trystram, An incomplete factorization algorithm for adaptive filtering 13 (4) (1987) 353–360
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Cotillon, Th., P. Gaillard, W. Charon, C. Aumasson and H.T. Huynh, Restitution par filtrage de Kalman et lissage de Rauch des trajectoires, attitudes et caractéristiques de maquettes d'avion catapultées en vol libre 3 (2) (1981) 157–173
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Crignon I., B. Dubuisson and G. le Guillou, The ternary decision tree: A multistage classifier with reject 5 (5) (1983) 433–443
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Daniell, G.J., An improvement in the evaluation of convolutions of real symmetric signals using the fast Fourier transform 10 (3) (1986) 311–313
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De Mori, R., Recent advances in automatic speech recognition 1 (2) (1979) 95–123
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Dechambre, M. and J. Lavergnat, Statistical properties of the instantaneous frequency for a noisy signal 2 (2) (1980) 137–150
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Deekshatulu, B.L., A.D. Kulkarni and G.K. Rao, Quantitative evaluation of enhancement techniques 8 (3) (1985) 369–375
Del Re, E., On the performance evaluation of a multifrequency-tone envelope detector 3 (1) (1981) 63– 72
Del Re, E. and R. De Vidi, A practical method of coefficient computation for a microprocessor-controlled variable recursive digital filter 2 (3) (1980) 283–287
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Demirbaş, K., Nonlinear state estimation with composite hypothesis testing in blocks for dynamic systems with past histories and nonlinear interferences 20 (2) (1990) 153–161
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Dimolitsas, S. and P.F. Lister, Waveform preserving encoders for the compression of EEG data 10 (4) (1986) 439–454
Dinstein, I., Computer recognition of handwritten Hebrew characters 3 (1) (1981) 73– 77
Dinstein, I., G. Guy, J. Rabany, J. Tzelgov and A. Henik, On the compression of stereo images: Preliminary results 17 (4) (1989) 373–382
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Duhamel, P. and H. Hollmann, On discrete Fourier transforms (number-theoretic transforms) with minimum number of rotations (shifts) 14 (3) (1988) 237–241
Duhamel, P. and M. Vetterli, Fast Fourier transforms: A tutorial review and a state of the art 19 (4) (1990) 259–299
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Dunlop, J. and A.C. Lorimer, A developmental system for special purpose digital signal processing applications 9 (3) (1985) 207–213
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Dupé, M., Application de l'analyse spectrale autorégressive au traitement de mesures de turbulence 1 (4) (1979) 269–281
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Dyson, T. and S. Rao, Some detection and resolution properties of maximum entropy spectrum analysis 2 (3) (1980) 261–270

Eden, M. and M. Kocher, On the performance of a contour coding algorithm in the context of image coding. Part I: Contour segment coding 8 (4) (1985) 381–386
Eden, M., M. Unser and R. Leonardi, Polynomial representation of pictures 10 (4) (1986) 385–393
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Emiliani, P.L., P. Graziani and A. Tronconi, An excitation function for LPC synthesis of voiced frames 5 (6) (1983) 515–521
Engels, W., E.L. Stark and L. Vogt, on the application of an optimal spline sampling theorem 14 (3) (1988) 255–236
Er, M.H., A robust formulation for an optimum beamformer subject to amplitude and phase perturbations 19 (1) (1990) 17– 26
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Fahmy, M.M., *N*-dimensional symmetries and their applications in digital filters 19 (2) (1990) 103–117
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Fettweis, A., Modified wave digital filters for improved implementation by commercial digital signal processors 16 (3) (1989) 193–207
Feuer, A. and N. Berman, Performance analysis of the smoothed least mean square (SLMS) algorithm 11 (3) (1986) 265–276
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Flandrin, P., On the positivity of the Wigner–Ville spectrum 11 (2) (1986) 187–189
Flandrin, P. and B. Escudié, Time and frequency representation of finite energy signals: A physical property as a result of an Hilbertian condition 2 (2) (1980) 93–100
Flandrin, P. and B. Escudié, An interpretation of the pseudo-Wigner–Ville distribution 6 (1) (1984) 27– 36
Flandrin, P., *see* W. Martin 8 (2) (1985) 215–233

Fleisher, S. and E. Shwedyk, Performance of sequential detector for multiple composite hypotheses 18 (1) (1989) 43– 54
Flouzat, G. and F. Safa, Speckle and removal on radar imagery based on Mathematical Morphology 16 (4) (1989) 319–333
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Friedlander, B. and B. Porat, On the computation of an asymptotic bound for estimating autoregressive signals in white noise 8 (3) (1985) 291–302
Friedlander, B. and B. Porat, Multichannel ARMA spectral estimation by the modified Yule–Walker method 10 (1) (1986) 49– 59
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Fundana, T., A method for the extraction of spectral peaks and its application to fundamental frequency estimation of speech signals 13 (1) (1987) 15– 28

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Gardner, W.A., Learning characteristics of stochastic-gradient-descent algorithms: A general show, analysis and critique 6 (2) (1984) 113–133
Gardner, W.A., The spectral correlation theory of cyclostationary time-series 11 (1) (1986) 13– 36
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Garg, N.K., *see* S.D. Morgera 10 (2) (1986) 153–170
Garibotto, G. and G. Micca, Image processing through a two-component model 3 (3) (1981) 241–246
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Gasull, A., *see* M.A. Lagunas 10 (1) (1986) 19– 34
Gazanhes, C., A. Calaora and R. Condat, Acoustical measurements of surface roughness using interferometry and speckle correlation 4 (2,3) (1982) 155–167
Gazanhes, C., J.L. Garnier and J.P. Sessarego, Signal processing for multimodal transmission in shallow water propagation: Application to underwater acoustic communication 6 (3) (1984) 167–185

Geçkinli, N.C. and D. Yavuz, A set of optimal discrete linear smoothers 3 (1) (1981) 49– 62
Geçkinli, N.C., T. Güngen, H. Güngen and M. Etişkol, Speech synthesis using AM/FM sinusoids and band-pass noise 8 (3) (1985) 339–361
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Geçkinli, N.C., *see* T. Güngen 6 (4) (1984) 293–300
Gesù, V. di and M.C. Maccarone, The Bayesian direct deconvolution method: Properties and applications 6 (3) (1984) 201–211
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Girod, B. and W. Geuen, Vertical sampling rate decimation and line-offset decimation of colour difference signals 16 (2) (1989) 109–127
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Giusto, D.D. and G. Vernazza, Optical flow calculation from feature space analysis through an automatic segmentation process 16 (1) (1989) 41– 51
Glangeaud, F. and C. Latombe, Multi-component filtering of magnetic signals 11 (2) (1986) 133–143
Gnanasekaran, R., Comments on "Block realization of two-dimensional half-plane IIR digital filters" derived by Mertzios (1984) 13 (1) (1987) 85– 87
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Göckler, H., Design of recursive polyphase networks with optimum magnitude and minimum phase 3 (4) (1981) 365–376
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Granum, E., G.A. Shippey, R.J.H. Bayley, G. Hamilton and D. Rutovitz, Real time digital thresholding of data from continuous scanning linear arrays 12 (4) (1987) 349–362
Granum, E., *see* J. Piper 2 (3) (1980) 203–221
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Green, D.K. and J.A. Fantes, Improved accuracy of in-flow chromosome fluorescence measurements by digital processing of multiparameter flow data 5 (2) (1983) 175–186
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Grenez, F., Sensitivity formulas for digital lattice filters 2 (2) (1980) 177–178
Grenez, F., Design of linear or minimum-phase FIR filters by constrained Chebyshev approximation 5 (4) (1983) 325–332
Gritzali, F., Towards a generalized scheme for QRS detection in ECG waveforms 15 (2) (1988) 183–192
Gritzali, F. and C. Papakonstantinou, A fast piecewise linear approximation algorithm 5 (3) (1983) 221–227
Groen, F.C.A., R.J. Ekkers and R. de Vries, Image processing with personal computers 15 (3) (1988) 279–291
Gruber, P., *see* B. Steinle 8 (4) (1985) 415–422
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Gulli, C., Analogy between the chi-squared density function and the impulse response of a fractional system 17 (2) (1989) 129–140
Gündel, L., A novel high-speed Fourier-vector processor 9 (2) (1985) 107–120
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Hall, M.G., A.V. Oppenheim and A.S. Willsky, Time-varying parametric modeling of speech 5 (3) (1983) 267–285
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Heitz, F, H. Maitre and C. de Couessin, Application of autoregressive models to fine arts painting analysis 13 (1) (1987) 1– 14
Hekrdla, J., On the use of continued fraction filter structures for the design of 2-D digital filters 7 (3) (1984) 321–331

Henik, A., *see* I. Dinstein 17 (4) (1989) 373–382
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Hertz, D., Simplified time delay estimation between two phaseshifted signals 11 (1) (1986) 93– 95
Hertz, D. and M. Azaris, The delay estimation between two phase shifted signals via generalized cross-correlation methods 8 (2) (1985) 235–257
Heute, U., Results of a deterministic analysis of FFT coefficient errors 3 (4) (1981) 321–331
Heute, U., The impact of FFT coefficient errors on polyphase filter banks 7 (2) (1984) 119–133
Heute, U. and P. Vary, A digital filter bank with polyphase network and FFT hardware: Measurements and applications 3 (4) (1981) 307–319
Heute, U., *see* P. Vary 2 (1) (1980) 55– 65
Higgins, J.R., Some gap sampling series for multiband signals 12 (3) (1987) 313–319
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Hötter, M. and R. Thoma, Image segmentation based on object oriented mapping parameter estimation 15 (3) (1988) 315–334
Husøy, J.H. and T.A. Ramstad, Application of an efficient parallel IIR filter bank to image subband coding 20 (4) (1990) 279–292
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Hwang, C.J. and K.R. Rao, Channel error propagation in adaptive TV coders 10 (2) (1986) 171–183

Ikonomopoulos, A. and M. Kunt, High compression image coding via directional filtering 8 (2) (1985) 179–204
Isaksson, A. and M. Millnert, Inverse glottal filtering using a parameterized input model 18 (4) (1989) 435–445
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Jacobson, L.D. and H. Wechsler, Joint spatial/spatial-frequency representation 14 (1) (1988) 37– 68
Jahns, J., Efficient Hadamard transformation of large images 5 (1) (1983) 75– 80
Jansen, B.H. and Y.-S. Yeh, Single trial evoked potential analysis by means of crosscorrelation and dynamic timewarping 11 (2) (1986) 179–186
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Janssen, A.J.E.M., Note on a linear system occurring in perfect reconstruction 18 (1) (1989) 109–114
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Jarske, P., Y. Neuvo and S.K. Mitra, A simple approach to the

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Jaszczak, K.J., *see* W.J. Borodziewicz 5 (4) (1983) 369–375
Jeanrenaud, P. and M.J.T. Smith, Recursive subband image coding with adaptive prediction and finite state vector quantization 20 (1) (1990) 25– 42
Jeulin, D., Morphology modeling of images by sequential random functions 16 (4) (1989) 403–431
Jeyendran, B. and V.U. Reddy, Recursive system identification in the presence of burst disturbance 20 (3) (1990) 227–245
Jiménez, J. and J.C. Agüi, Approximate reconstruction of randomly sampled signals 12 (2) (1987) 153–168
Jinaga, B.C. and S.C. Dutta Roy, Coefficients of maximally flat nonrecursive digital filters 7 (2) (1984) 185–189
Jinaga, B.C. and S.C. Dutta Roy, Coefficients of maximally flat low and high pass nonrecursive digital filters with specified cutoff frequency 9 (2) (1985) 121–124
Johnston, J.A., Generating multipliers for a radix-4 parallel FFT algorithm 6 (1) (1984) 61– 66
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Jondral, F., Automatic classification of high frequency signals 9 (3) (1985) 177–190
Jourdain, G., Communication FSK à voies diversité non identiques —Comparaison avec un codage correcteur d'erreur 2 (2) (1980) 151–172
Jourdain, G. and G. Tziritas, Communication over fading dispersive channels—Optimal receivers and signals 6 (1) (1984) 3– 25
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Kahn, E., R. Di Paola, J.P. Bazin and P. Schmidlin, Detection and display of defects in medical scintigraphic images 3 (3) (1981) 259–266
Kalouptsidis, N., G. Carayannis and D. Manolakis, Fast algorithms for block Toeplitz matrices with Toeplitz entries 6 (1) (1984) 77– 81
Kalouptsidis, N., D. Manolakis and G. Carayannis, A family of computationally efficient algorithms for multichannel signal processing—A tutorial review 5 (1) (1983) 5– 19
Kalouptsidis, N., D. Manolakis and G. Carayannis, Efficient recursive triangularization, inversion and system solution of near-to-Toeplitz matrices and applications in signal processing 6 (3) (1984) 235–259
Kalouptsidis, N., *see* G. Carayannis 10 (4) (1986) 335–368
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Kalveram, H. and P. Meissner, Itakura–Saito clustering and rate distortion functions for a composite source model of speech 18 (2) (1989) 195–216
Kalyanasundaram, N. and P.R. Rao, On the synthesis of radar signals using the Woodward ambiguity function 10 (2) (1986) 145–152
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Karaboyas, S., N. Kalouptsidis and C. Caroubalos, An efficient method for multipath channel equalization 17 (4) (1989) 321–341
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Karasalo, I. and L. Götherström, A regression formulation of Pisarenko's nonlinear spectral estimators 12 (3) (1987) 309–311
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Katayama, T. and T. Hirai, Parameter identification for noisy image via the EM algorithm 20 (1) (1990) 15– 24
Katayama, T., T. Hirai and K. Okamura, A fast Kalman filter approach to restoration of blurred images 14 (2) (1988) 165–175
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Kazakos, D., Optimal constrained representation and filtering of signals 5 (4) (1983) 347–353
Kazovsky, L.G., Sequential estimation of the position of an optical beam 3 (4) (1981) 345–354
Kazovsky, L.G., MAP sequential detection of optical signals 4 (4) (1982) 263–275
Kazovsky, L.G. M-ary sequential detection under conditions of a priori uncertainty 4 (4) (1982) 277–285
Kazovsky, L.G., Sequential detection versus conventional detection: A comparative study 8 (4) (1985) 441–446
Kazovsky, L.G., E. Plotkin and A. Zayezdny, Nonlinear suppression of autoregressive impulse noise in on–off binary communications 7 (1) (1984) 31– 44
Kedem, B., Search for periodicities by axis-crossings of filtered time series 10 (2) (1986) 129–144
Kedem, B., On frequency detection by zero-crossings 10 (3) (1986) 303–306
Kekre, H.B., S.C. Sahasrabudhe and N.C. Goyal, Raised cosine function for image restoration 5 (1) (1983) 61– 73
Keller, Hj., A. Favre and J. Fuhrer, On the use of hardwired algorithms to assess texture 2 (4) (1980) 391–396
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Kennair, J.T., *see* B. Taylor 5 (6) (1983) 531–540
Kim, H.J., C.K. Un and J.C. Lee, An LS algorithm based on a posteriori output sequences for IIR adaptive filtering 20 (3) (1990) 247–255
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Kitagawa, G. and T. Takagami, Extraction of signal by a time series model and screening out micro earthquakes 8 (3) (1985) 303–314
Klemm, R., Horizontal array gain in shallow water 2 (4) (1980) 347–360
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Knipper, A., Acoustic events in CV syllables with liquid and nasal sounds 3 (4) (1981) 389–396
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Ko, C.C. and Y.C. Lim, Approximation of a variable-length delay line by using tapped delay line processing 14 (4) (1988) 361–367
Ko, C.C., K.L. Tum, W. Ser and T.S. Quek, A simple fast adaptive zero tracking algorithm 20 (4) (1990) 315–323
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Kocher, M. and R. Leonardi, Adaptive region growing technique using polynomial functions for image approximation 11 (1) (1986) 47– 60
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Koeleman, A.S.M., T.J. Van den Akker, H.H. Ros, R.J. Janssen and O. Rompelman, Estimation accuracy of P wave and QRS complex occurrence times in the ECG: The accuracy for simplified theoretical and computer simulated waveforms 7 (4) (1984) 389–405
Kolb, H.I., A signalprocessor using bit-slice elements for the audio frequency range 2 (4) (1980) 339–346
Kollias, S., P. Foudopoulos and C. Halkias, One-dimensional seismic inversion using adaptive deconvolution 14 (3) (1988) 269–285
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Kouvaras, N. and J. Karakatsanis, A technique for a substantial reduction of the quantization noise in the direct processing of delta modulated signals 8 (1) (1985) 107–119
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Krishna, H. and Y. Wang, On fast algorithm for testing the stability of discrete time systems 17 (3) (1989) 251–257
Krishnasami, P. and M.N. Faruqui, DPCM picture coding using two-dimensional quantizer 10 (3) (1986) 315–322
Kroschel, K., A comparison of quantizers optimized for corrupted and uncorrupted input signals 12 (2) (1987) 169–176
Ktonas, P. Y. and N. Papp, Instantaneous envelope and phase extraction from real signals: Theory, implementation and an application to EEG analysis 2 (4) (1980) 373–385
Kulkarni, A.D. and K. Sivaraman, Interpolation of digital imagery using hypersurface approximation 7 (1) (1984) 65– 73
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Kulpa, Z., Some remarks on "A note on the computation of the enclosed area for contour-coded binary objects" by P. Zamperoni 4 (1) (1982) 85– 86
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Kunt, M., Editorial 1 (1) (1979) 1
Kunt, M., In place computation of the Hadamard transform in cal-sal order 1 (3) (1979) 227–231
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Lebedev, D.S. and E.K. Vendrovsky, On the detection of jumps in a Markovian piecewise-constant signal	4	(5,6)	(1982)	387–395
Lee, J.C., *see* H.J. Kim	20	(3)	(1990)	247–255
Lee, S., E. Milios, R. Greiner, J. Rossiter and A. Venetsanopoulos, On the machine analysis of radar signals for ice profiling	18	(4)	(1989)	371–386

Leich, H., *see* R. Boite 3 (2) (1981) 101–108
Lenzer, J., R. Lenzer and R. Steinmetz, Design, programming and application of a high-speed multi-processor system for use in digital signal processing 7 (1) (1984) 17– 30
Lenzer, R., *see* J. Lenzer 7 (1) (1984) 17– 30
Leonardi, R., *see* M. Eden 10 (4) (1986) 385–393
Leonardi, R., *see* M. Kocher 11 (1) (1986) 47– 60
Lepschy, A., G.A. Mian and U. Viaro, Parameter plane quantisation induced by the signal quantisation in second-order fixed-point digital filters with one quantiser 14 (1) (1988) 103–106
Levialdi, S., Editorial to Special Issue on Image Analysis and Processing 3 (3) (1981) 215–216
Levy, B.C., *see* A.H. Tewfik 13 (2) (1987) 121–139
Li, C.E. and K.R. Rao, Component coding of the NTSC color TV signal 10 (3) (1986) 265–277
Liang, J.K. and R.J.P. De Figueiredo, A design algorithm for optimal nonlinear phase FIR digital filters 8 (1) (1985) 3– 21
Liberati, D., *see* S. Cerutti 9 (1) (1985) 25– 35
Lichtin, J.P., G. Stamon, J.M. Henrioud and A. Faure, Operational filtering of a binary image 9 (1) (1985) 15– 23
Liedtke, F.F., Computer simulation of an automatic classification procedure for digitally modulated communication signals with unknown parameters 6 (4) (1984) 311–323
Liefhebber, F. and D.E. Boekee, Minimum information spectral analysis 12 (3) (1987) 243–255
Lienard, J., Méthodes numériques de réalisation d'un operateur compression de temps 3 (2) (1981) 175–180
Ligtenberg, A., J.H. O'Neill and M. Vetterli, MOVAL: A framework for turning digital signal processing algorithms into custom chips 11 (2) (1986) 119–132
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Lindgren, A.G. and P.A. Rattey, Tomographic image reconstruction from a limited number of projections 7 (4) (1984) 371–387
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Linkens, D.A., Empirical rules for the selection of parameters for auto-regressive spectral analysis of biomedical rhythms 1 (4) (1979) 243–258
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Ljung, L., Aspects on the system identification problem 4 (5,6) (1982) 445–456
Lo Presti, L., Prewarping technique in filter simulation by bilinear transformations 5 (6) (1983) 523–529
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Lüke, H.D., L. Bömer and M. Antweiler, Perfect binary arrays 17 (1) (1989) 69– 80
Lumeau, B. and H. Clergeot, Spatial localization—Spectral matrix bias and variance—Effects on the source subspace 4 (2,3) (1982) 102–123

Maccarone, M.C., *see* Y. di Gesù 6 (3) (1984) 201–211
Macchi, O., *see* S. Marcos 20 (1) (1990) 43– 65
Macleod, J.E.S., Automatic inspection of tubes scanned by a rotating eddycurrent probe 5 (5) (1983) 445–450
Macq, B., *see* J.M. Adant 13 (4) (1987) 385–397
Madhu Murthy, K.V. and B. Yegnanarayana, Effectiveness of representation of signals through group delay functions 17 (2) (1989) 141–150
Magnin, I.E., F.C. Peyrin and M. Amiel, Reconstruction of object by iterative coded-source image deconvolution 8 (2) (1985) 153–162
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Mali, P.C., B.B. Chaudhuri and D. Dutta Majumder, Some properties and fast algorithms of slant transform in image processing 9 (4) (1985) 233–244
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Manolakis, D., *see* N. Kalouptsidis 5 (1) (1983) 5– 19
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Manolakis, D., *see* N. Kalouptsidis 6 (3) (1984) 235–259
Marcos, S. and O. Macchi, Joint adaptive echo cancellation and channel equalization for data transmission 20 (1) (1990) 43– 65
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Marietti, P., *see* G. Ciccarella 12 (4) (1987) 385–393
Mariño, J.B. and E. Masgrau, Sampling in-phase and quadrature components of band-pass signals 20 (2) (1990) 121–125
Marlow, B.K. and B.G. Batchelor, Digitization and display for interactive image analysis 2 (4) (1980) 361–372
Marquis, D.A., *see* J.P. Noonan 17 (1) (1989) 81– 85
Mars, N.J.I. and G.W. Van Arragon, Time delay estimation in non-linear systems using average amount of mutual information analysis 4 (2,3) (1982) 139–153
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Marsol, R., *see* N. Colin 19 (1) (1990) 83– 90
Martens, J.B., Convolution algorithms, based on the CRT (Chinese Remainder Theorem) 6 (4) (1984) 279–292
Martens, J.B.O.S. and G.M.M. Majoor, The perceptual relevance of scale-space image coding 17 (4) (1989) 353–364
Martin, N., An AR spectal analysis of non-stationary signals 10 (1) (1986) 61– 74
Martin, W., Line tracking in nonstationary processes 3 (2) (1981) 147–155
Martin, W. and P. Flandrin, Detection of changes in signal structure by using the Wigner–Ville spectrum 8 (2) (1985) 215–233
Mascellani, P., *see* S. Cerutti 9 (1) (1985) 25– 35
Maseng, T., The power spectrum of digital FM as produced by digital circuits 9 (4) (1985) 253–261
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McLaren, W., *see* J. Piper 4 (5,6) (1982) 361–373
McMahon, D.R.A. and R.F. Barrett, An efficient method for the estimation of the frequency of a single tone in noise from the phases of discrete Fourier transforms 11 (2) (1986) 169–177
McMahon, D.R.A. and R.F. Barrett, Generalisation of the method for the estimation of the frequencies of tones in noise from the phases of discrete Fourier transforms 12 (4) (1987) 371–383
McVerry, F., *see* A.P. Clark 2 (1) (1980) 39–53
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Mecocci, A., Moving object recognition and classification in external environments 18 (2) (1989) 183–194
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Mendel, J.M., Comments on "Optimal seismic deconvolution" (D.G. Lainotis, S.K. Katsikas and S.D. Likothanassis, Signal Processing, Vol. 15, No. 4, 1988, pp. 375–404) 18 (4) (1989) 447–448
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Mertzios, B.G., Block realization of 2-D, IIR digital filters 7 (2) (1984) 135–149
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Morgera, S.D., On discrete stochastic congruences in communications: The one- and two-dimensional problems 11 (3) (1986) 237–248
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Mou, Z.J. and P. Duhamel, Fast FIR filtering: Algorithms and implementations 13 (4) (1987) 377–384
Moustafa, S.S., P. Chlique, Y. Quenec'hdu and G. Zwingelstein, A microprocessor system for surveillance of sensors via autoregressive identification 3 (1) (1981) 19– 27
Moustafa, S.S., P. Chlique, Y. Quenec'hdu and G. Zwingelstein, A microprocessor system for surveillance of sensors via autoregressive identification 3 (3) (1981) 285
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Naaman, L. and A.C. Bovik, Least-squares order statistic filters with coefficient censoring 18 (2) (1989) 139–152
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Nadeu, C., M. Bertrán-Salvans and J. Solé, Spectral estimation with rational modeling of the log spectrum 10 (1) (1986) 7– 18
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Paliwal, K.K. and P.V.S. Rao, A modified autocorrelation method of linear prediction for pitch-synchronous analysis of voiced speech 3 (2) (1981) 181–185
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Piper, J., The effect of zero feature correlation assumption on maximum likelihood based classification of chromosomes 12 (1) (1987) 49– 57
Piper, J., E. Granum, D. Rutovitz and H. Ruttledge, Automation of chromosome analysis 2 (3) (1980) 203–221
Piper, J., P. Nickolls, W. McLaren, D. Rutovitz, A. Chisholm and I. Johnstone, The effect of digital image filtering on the performance of an automatic chromosome classifier 4 (5,6) (1982) 361–373
Pitas, I., Markovian image models for image labeling and edge detection 15 (4) (1988) 365–374
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Pitas, I. and M.G. Strintzis, Algorithms for the reduction of the input–output operations in the calculation of the two-dimensional discrete Fourier transform 12 (3) (1987) 277–289
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Plotkin, E.I., L.M. Roytman and M.N.S. Swamy, Nonuniform sampling of bandlimited modulated signals 4 (4) (1982) 295–303
Plotkin, E.I., L.M. Roytman and M.N.S. Swamy, Unbiased estimation of an initial phase 6 (1) (1984) 301–310

Plotkin, E.I., L.M. Roytman and M.N.S. Swamy, Reconstruction of nonuniformly sampled band-limited signals and jitter error reduction 7 (2) (1984) 151–160
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Youn, D.H., V.J. Mathews and S.H. Cho, An efficient lattice predictor algorithm for instantaneous frequency estimation 10 (1) (1986) 75– 81
Yuen, C.K., On the smoothed periodogram method for spectrum estimation 1 (1) (1979) 83– 86

Zamperoni, P., A note on the computation of the enclosed area for contour-coded binary objects 3 (3) (1981) 267–271
Zamperoni, P., *see* H. Amiri 1 (1) (1979) 5– 13
Zamperoni, P., *see* H.U. Döhler 8 (1) (1985) 23– 39
Zarone, G., *see* E. Conte 4 (4) (1982) 313–321
Zarour, R. and M.M. Fahmy, A design technique for variable two-dimensional recursive digital filters 17 (2) (1989) 175–182
Zayezdny, A., *see* L.G. Kazovsky 7 (1) (1984) 31– 44
Zeman, J. and A.G. Lindgren, Fast state-space decimator with very low round-off noise 3 (4) (1981) 377–388
Zetterberg, L.H. and Q. Zhang, Elimination of transients in adaptive filters whith application to speech coding 15 (4) (1988) 419–428
Zhang, Shoumiao, *see* Qingdong Yao 8 (2) (1985) 163–177
Zhang, Q.,*see* L.H. Zetterberg 15 (4) (1988) 419–428
Zhang, Q.T., An entropy-based receiver for the detection of random signals and its application to radar 18 (4) (1989) 387–396
Zhu, Y.M., F. Peyrin and R. Goutte, The use of a two-dimensional Hilbert transform for Wigner analysis of 2-dimensional real signals 19 (3) (1990) 205–222
Ziomek, L.J., Linear time-invariant space-variant filters and the parabolic equation approximation 8 (4) (1985) 423–439
Ziomek, L.J. and L.H. Sibul, Maximization of the signal-to-interference ratio for a doubly spread target: Problems in nonlinear programming 5 (4) (1983) 355–368
Zou, M. and X. Liu, Design and implementation of circularly and spherically symmetric multidimensional digital filters 17 (1) (1989) 51– 67
Zwingelstein, G., *see* S.S. Moustafa 3 (1) (1981) 19– 27